

RECEIVED  
CENTRAL FAX CENTER

MAY 20 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Andrea D. Branch, *et al.*

Serial No.: 10/601,020

Filed: June 20, 2003

For: *NOVEL HEPATITUS C VIRUS PEPTIDES AND  
USES THEREOF*

Attorney Docket No.: RII-003CPUSDV1

Group Art Unit: 1648

Examiner: Timothy M. Brown

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office, facsimile no. (703) 872-9306 at  
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below

Dated May 20, 2005

Signature: 

(Megan E. Williams)

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Dear Sir:

For the Examiner's convenience in reviewing this divisional application, Applicants submit a consolidated PTO Form SB/08, listing all references cited during the prosecution of the parent application. The present application is a Divisional of U.S. Serial No. 09/719,277, filed April 13, 2001 (Atty. Docket No. RII-003CPUS. All references listed on the enclosed PTO Form SB/08 have been previously cited by or submitted to the Office in the prior application, and, in accordance with 37 CFR §1.98(d), copies of the references are not enclosed but will be provided upon request.

This statement is not to be interpreted as a representation that the cited publications are material, that an exhaustive search has been conducted, or that no other relevant information exists. Nor shall the citation of any publication herein be construed *per se* as a representation that such publication is prior art. Moreover, the

Serial Number: 10/601,020

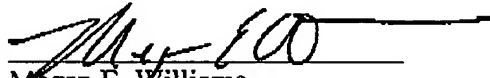
Page -2-

Group Art Unit: 1648

Applicants understand that the Examiner will make an independent evaluation of the cited publications.

Under 37 CFR § 1.97(b)(3), no additional costs are believed to be due in connection with the filing of this disclosure. If, however, a first Office Action on the merits issues in this application bearing a mailing date prior to the date of this Information Disclosure Statement, please charge the appropriate fee as required under 37 CFR §1.17(p) to our Deposit Order Account No. 12-0080.

Respectfully submitted,  
LAHIVE & COCKFIELD, LLP

  
Megan E. Williams  
Registration No. 43,270  
Attorney for Applicants

28 State Street  
Boston, MA 02109  
(617) 227-7400

Date: May 20, 2005

GAD/MEW/rl  
Enclosures

PTO/SB/08a/p (08-03)

Approved for use through 07/31/2006 OMB 0651-0031

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/601,020
				Filing Date	June 20, 2003
				First Named Inventor	Andrea D. Branch, et al.
				Art Unit	1648
				Examiner Name	Timothy M. Brown
				Attorney Docket Number	R11-003CPUSDV1
Sheet	1	of	2		

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>3</sup>
		Country Code <sup>4</sup> -Number-Kind Code <sup>5</sup> (if known)				

\*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kind Codes or USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T <sup>2</sup>
	B1	Boulant, S., et al. "Unusual multiple recoding events leading to alternative forms of hepatitis C virus core protein from Genotype 1b." <i>J Biol Chem.</i> 2003 Nov 14; 278(46):45785-92				
	B2	Branch, A D., et al. "The hepatitis C virus alternate reading frame (ARF) and its family of novel products: the alternate reading frame protein/F-protein, the double-frameshift protein, and others." <i>Semin Liver Dis.</i> 2005 Feb; 25(1):105-17				
	B3	Choi, J., et al. "Triple decoding of hepatitis C virus RNA by programmed translational frameshifting." <i>Mol Cell Biol.</i> 2003 Mar; 23(5):1489-97.				
	B4	Komurian-Pradel, F., et al. "Antigenic relevance of F protein in chronic hepatitis C virus infection." <i>Hepatology.</i> 2004 Oct; 40(4):900-9.				
	B5	Ogata, S., et al. "Comparative sequence analysis of the core protein and its frameshift product, the F protein, of hepatitis C virus subtype 1b strains obtained from patients with and without hepatocellular carcinoma." <i>J Clin Microbiol.</i> 2002 Oct; 40(10):3625-30.				
	B6	Rodriguez-Lopes, M. "Immunogenecity of variable regions of hepatitis C proteins." <i>Journ. Of Gen. Virol.</i> 1999; 80:727-73.				
	B7	Roussel, J., et al. "Characterization of the expression of the Hepatitis C virus F protein." <i>J Virol.</i> 2003; 84:1751-1759.				
	B8	Tan, S-L., et al. "Hepatitis C therapeutics: current status and emerging strategies." <i>Nature</i> 2002 Nov; 1:867-881.				
	B9	Vassilaki, N., et al. "Two alternative translation mechanisms are responsible for the expression of the HCV ARF1/F1Core +1 coding open reading frame." <i>J Biol Chem.</i> 2003 Oct; 278:40503-40513.				

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

PTO/SB/08a/p (08-03)

Approved for use through 07/31/2008 OMB 0851-0031

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				Application Number	10/601,020
				Filing Date	June 20, 2003
				First Named Inventor	Andrea D. Branch, <i>et al</i>
				Art Unit	1648
				Examiner Name	Timothy M. Brown
Sheet	2	of	2	Attorney Docket Number	RJI-003CPUSDV1

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>	
	C1	Walewski, J.L., <i>et al</i> . "Reading between the lines: evidence for a new Hepatitis C virus protein." <i>Hepatology</i> , 2003 Sep, 36(3) 757-60		
	C2	Walewski, J.L., <i>et al</i> . "Mutation Master: profiles of substitutions in hepatitis C virus RNA of the core, alternate reading frame, and NS2 coding regions." <i>RNA</i> , 2002 May, 8(5) 557-71		
	C3	Walewski, J.L., <i>et al</i> . "Evidence for a new hepatitis C virus antigen encoded in an overlapping reading frame." <i>RNA</i> , 2001 May, 7(5) 710-21.		
	C4	Walewski, J.L., <i>et al</i> . "HCV patients have antibodies against a novel protein encoded in a second reading frame." <i>Hepatology</i> 28 (4, Pt. 2):278A, Abstr. 462 (October 1998).		
	C5	Xu, Z., <i>et al</i> . "Hepatitis C virus F protein is a short-lived protein associated with the endoplasmic reticulum." <i>J Virol</i> , 2003 Jan, 77(2):1578-83.		
	C6	Yeh, C-T, <i>et al</i> . "Amino acid substitutions in codons 9-11 of hepatitis C virus core protein lead to the synthesis of a short core protein product." <i>J Gastroenterol Hepatol</i> , 2000 Feb; 15(2) 182-91		

<sup>1</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>2</sup>Applicant's unique citation designation number (optional). <sup>3</sup>Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature	Date Considered
--------------------	-----------------